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Does share capital mater for company performance?

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ABSTRACT

This article examines the impact of share capital on companies' performance as well as the effect of accounting information on companies' market performance and the impact of pre-IPO information on the predictive power of companies' performance after an initial public offering (IPO). The research was conducted on a sample of IPO companies debuting on the Warsaw Stock Exchange. It shows that a large percentage of share capital in equity reduces capital flexibility but can also be a signal to improve companies' market performance. It also shows that after an IPO, the market's information efficiency diminishes, which means, among other things, that pre-IPO accounting information has a negligible impact on the companies' market performance after the IPO.

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1. Introduction

Capital structure' is commonly understood to mean the combination of the different types of financing sources that a company maintains as a result of its decisions to achieve specific benefits (Niu, 2008). The most prolific stream of research related to capital structure concerns the impact of debt on the value of an enterprise. This was initiated by the pioneering researchers Modigliani and Miller (1958), who claimed that, in the conditions of an excellent capital market, the amount of debt does not affect the value of a company. Their article contributed to the explosion of research on the structure of capital and its impact on a company's achievements. It led to the creation of many theories, among which trade-off theory, pecking order theory and agency theory are of particular importance. However, as Le and Phan (2017) note, there is no theory that fully explains the impact of debt on a company's performance. According to Ardalan (2017), this is due to the extraordinary complexity and diversity of societies, which is not taken into account by theories. Other aspects of capital structure, especially the impact of the equity structure on a company's performance, arouse much less interest in researchers. With the exception of the influence of ownership structure on a company's performance (Aluchna & Kaminski, 2017;

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Kapopoulos & Lazaretou, 2007; Kaserer & Moldenhauer, 2008; Krivogorsky & Grudnitski, 2010; Maury, 2006; Short & Keasey, 1999), there is practically no research in this area. This is particularly true of the impact of share capital, which has special features that set it apart from other types of equity. Share capital is associated with the concept of par value, which has more than 200 years of history and was created to counteract fraudulent practices that became popular in the nineteenth century after shareholders were released from their obligations to the company (Cook, 1921). The concept of par value has been criticized since its birth, as it is said not to be able to protect creditors effectively against the defrauding behaviour of shareholders. Although it has become a cornerstone of the legislation of many countries, today there is a clear tendency to abandon it, except in the European Union and the European Economic Area. The strong position held by the concept of par value here results from its support in the Second Council Directive of 13 December 1976. Subsequent analyses, such as the Reforming capital report prepared by the Interdisciplinary Group on Capital Maintenance (Rickford, 2004) and the Feasibility study on an alternative to the capital company regime published by KPMG on behalf of the European Commission (KPMG, 2008), did not find unambiguous reasons for abandoning it. Therefore, it should be expected that this concept will continue to apply in the legislation of many countries.

The influence of share capital on a company's achievements may result from two important features. First, it is the capital that companies must hold to secure creditors' claims. A company cannot redistribute its share capital, and new shares may not be sold for less than par value. Its inviolable nature may therefore contribute to increasing the inflexibility of capital and thus negatively affect the company's performance. On the other hand, share capital can be a measure of shareholder involvement and thus be a signalling tool (Mulbert & Birke, 2002) for a company wishing to improve its image in the capital market.

The aim of this article is to examine whether these two characteristics of share capital have an impact on company performance. Additionally, the impact of pre-IPO accounting information on the predictive power of future company results as well as the impact of accounting information on the market performance of companies are examined.

In this article, the object of research is IPO firms whose debut took place in the period 1998–2013 on the Warsaw Stock Exchange (WSE). For each company, the results for a period of seven years were analysed, starting from one year before the IPO and ending five years after the IPO, which means that the analysis period covers the years 1998–2018.

The article contributes to the literature in several ways. First, it shows that, if share capital forms a large proportion of equity, it reduces capital flexibility and negatively affects accounting efficiency measures, such as the return on assets (ROA) and return on equity (ROE). On the other hand, it shows that there are reasons to think that, when share capital forms a large proportion of equity, it improves the financial image of the company and contributes to enhancing its market performance. Thus, the paper contributes to research on the impact of lender protection on various aspects of company operations. In the traditional approach the protection of lenders is

implemented through the principle of capital maintenance, to which the regime of par value and the resulting share capital belong. The par value regime is normally considered to be a technical issue for lawyers and accountants, but it can significantly affect the financing of a company (Rickford, 2004). In addition, research has suggested that creditor protection has an impact on companies' capital structure (Cho et al., 2014) and post-IPO operating performance (Espenlaub et al., 2020). Espenlaub et al. (2020) classified Poland as a country with low lender protection and showed that this protection has a negative impact on post-IPO operating performance. The research presented here sheds new light on the mechanism through which creditor protection influences post-IPO performance and on the multidirectional impact of share capital on firms' operating and market performance, which, to our knowledge, has not been reported in the literature so far.

Secondly, the findings show that it is possible to talk about market information efficiency and the impact of accounting information on market performance during the debut of a company and while prospectuses are being published. After the debut, the market performance breaks away from the fundamentals and is determined mainly by timing – the mood of investors. This is against the predictions of Ong et al. (2020) for the Malaysian market. Thus, the paper provides new knowledge about the mechanisms governing 'relational investor' markets, which constitute an area that has still not been fully explored, especially in emerging markets. The relationship between accounting information and market performance belongs to the most widely researched topics in accounting (Chen & Zhang, 2007). Most of the evidence, however, comes from the US market (Skogsvik, 2008), which represents a 'market-centred' model of governance (Pistor, 2000; Roe, 1993). According to Goslin et al. (2012), this does not warrant the conclusion that these phenomena are the same in all markets. The article shows a new phenomenon that has not previously been reported. Accounting information is assimilated by investors when it is accompanied by noise related to entering the stock exchange and is no longer assimilated when stocks become one of many securities.

Thirdly, research has shown that pre-IPO accounting information has very little predictive power for the long-term performance of companies (longer than one year). This phenomenon was already signalled by Bhabra and Pettway (2003), but the article provides evidence that the reasons behind it may be the low information efficiency of the market and the detachment of the market performance from the foundations in the years after the IPO. This is of great importance both for investors and for standard setters. The creation and dissemination of the International Financial Reporting Standards (IFRSs) is associated with high expectations regarding their impact on the functioning of capital markets. However, the work on and testing of new standards will be ineffective when the stock prices are disconnected from the fundamentals.

The remainder of the paper is organized as follows. Section 2 provides a literature review and the hypotheses for the investigation. Section 3 describes the data, the variables, and the research methods used in this study. Section 4 presents the empirical results, and Section 5 discusses the results and makes some concluding remarks.

2. Literature review and research hypotheses

2.1. Share capital

The concept of par value was conceived more than 200 years ago as a response to the fraudulent behaviour of shareholders after their release from personal responsibility for their company's obligations. The concept of par value consists of assigning each share a nominal value reflecting cash payments or assets contributed by each shareholder (Ho & Lan, 1999). Share capital can be considered the first legal capital because it initiated the principle of maintaining capital created to protect the company's creditors from the extra risk related to the limited liability of shareholders for the company's liabilities (Armour, 2000). Legal capital fulfils a similar role for creditors as a financial cushion which acts in the same way as financial adequacy provisions for financial institutions (Bachner, 2009; Handschin, 2012).

Legal capital has been criticized from its inception. Enriques and Macey (2001) believe that the capital-maintaining principle does not bring any benefits to creditors; on the contrary, in some cases it even harms them. Consequently, the accompanying burdens of this principle on companies and societies are completely unjustified. The authors are convinced that maintaining this principle in European law, despite its ineffectiveness, results only because of the influence of interest groups that benefit from the functioning of legal capital. These include incumbent management boards representing the interests of controlling shareholders, accounting officers providing required share valuation services, and lawyers assisting managers in navigating the maze of unnecessarily complicated laws regarding legal capital. In addition, Ho (2017) claims that the principle of capital maintenance contributes to reducing the flexibility of the financial structure and burdens it with cumbersome procedures that force companies to pay for 'useless expert reports and legal advice' (p. 19). Similarly, Mulbert and Birke (2002) consider that the utility of the capital maintaining principle for the protection of creditors is small, and there is a nontrivial likelihood that this principle does more harm than good. In turn, Mwenda (1999) remarks that the value of assets may increase or decrease over time and, for this reason, this value ceases to correspond to the value of the originally contributed share capital. Therefore, any cash-based equity valuations used as a signal for a market about the value of shares in the company's equity are usually fictional and may be both meaningless and misleading. Therefore, in contrast to Bebchuk (1992), Ho (2017) is convinced that in the real world, creditors do not pay attention to legally maintained capital, which should reflect the value of collateral, because they often protect their interests by covenants.

However, there are also authors who see the benefits of the capital-maintaining principle. Bonbright (1924) points out that par value does not reflect the value of a company subject to constant change and cannot be determined on the basis of share certificates; it only reflects the capital that shareholders agreed to contribute. In addition, Pennington (1990) emphasizes that the concept of par value is useful when declaring dividends as a percentage of par value, when determining the voting rights at a general meeting or determining the amounts due to privileged shareholders in the event of a company's liquidation. According to Mulbert and Birke (2002), the most important positive effect of the capital-maintenance principle is limiting harmful actions to creditors by distributing capital, in particular by way of 'hidden

distributions'. Therefore, the principle of maintaining capital can be a way of reducing post-contractual opportunism by shareholders (Armour, 2000), and the same mechanism can be used to reduce agency conflict (Panetsos, 2016). For example, as reported by Boubakri and Ghouma (2010), covenants may be ineffective in protecting creditors if the ultimate owners are a family. Cascino et al. (2013) are advocates of a continental accounting model which focuses on creditors and requires highly codified reporting (Joos & Lang, 1994), and empirical evidence from Europe shows that creditors prefer conservative accounting valuations. Mulbert and Birke (2002) states that the contribution of a significant amount of capital by shareholders sends out the signal that shareholders have confidence in their company and intend to work hard to succeed with the venture. We formulate the following hypothesis:

H1: Share capital is an effective signalling tool contributing to the improvement of companies' market performance.

2.2. Capital flexibility

'Financial flexibility is defined as the company's ability to take advantage of (cope with) a positive (negative) shock in its investment opportunity set' (Lambrinoudakis et al., 2019, p. 2). Anticipating future investment opportunities, managers try to prepare companies for the expected investment shock. Acting proactively, they reduce their debt so that in the future they will have a greater debt capacity. DeAngelo et al. (2011) justify this with a lower cost of debt than equity. In turn, collecting and keeping cash has a negative impact on value. Survey studies conducted by Graham and Harvey (2001), Bancel and Mittoo (2004) and Brounen et al. (2006) show that obtaining flexibility of capital is a very important factor in determining the financial policies of companies in the U.S and Europe. We assume that equity can also be a tool for achieving financial flexibility, either by allocating it to repayment of debt or by affecting creditworthiness. Therefore, if share capital of an inviolable nature has a large share in equity, the usefulness of equity as a tool in shaping financial flexibility decreases (Ho, 2017). This is suggested in the study by Bancel and Mittoo (2004), who showed that efforts to maintain financial flexibility are greater in countries with bank-based systems that use a continental accounting model focused mainly on valuing collateral for lenders. The results of Brounen et al. (2006) also show that financial flexibility is not driven by the pecking-order theory. In connection with the above, we formulate the following hypothesis:

H2: Share capital makes financial structure inflexible.

2.3. Predictive power of information from pre-IPO on post-IPO performance

An initial public offering is expected to accelerate a company's growth potential by raising sufficient capital (Mun & Jang, 2019). Investors analyse the information contained in prospectuses, estimate the growth potential, and make decisions to buy shares, which determine the success of the IPO. It can therefore be presumed that the information conveyed through a company's prospectus, which had an impact on the valuation of the new issue, is predictive of the future benefits for investors. The first

research on the importance of accounting information in forecasting a company's future performance was initiated by Ou and Penman (1989), who showed that 'trading strategies based on predictions of future earnings from "publicly available" financial statement information capture a significant portion of returns'. Since then, the relationship between equity returns and accounting information has been one of the most widely researched topics in accounting (Chen & Zhang, 2007). According to Kothari (2001), the investment strategy that relies on financial statement analysis data forms a discrete field of research in accounting. There is a widely accepted view that the information contained in a financial statement is a valuable predictor of the future stock return. However, this view is mainly based on evidence from the US market (Amel-Zadeh et al., 2020; Bhabra & Pettway, 2003; Chen & Zhang, 2007; Danielson & Press, 2003; Frank, 2002; Kourtis et al., 2017; Piotroski, 2000; Yan & Zheng, 2017). It is the largest and one of the oldest markets with a 'market-centred' model of corporate governance, characterized by equity finance and control by capital markets (Pistor, 2000; Roe, 1993).

Regarding other markets, it was confirmed by Skogsvik (2008) and Skogsvik and Skogsvik (2010) for Sweden, by Alexakis et al. (2010) for Greece, by Chung and Kim (2001) for Korea, and by Goslin et al. (2012) for New Zealand. For emerging markets, with some exceptions (e.g., Nigeria; Ajekwe & Ibiamke, 2018), research in this area is very scarce. Therefore, as emphasized by Goslin et al. (2012), more evidence from different countries is needed to draw conclusions about the commonness of the relationship between accounting information and equity returns. It is all the more important as Woodley et al. (2011) indicated that this relationship may change over time.

Poland belongs to the 'relational investor' markets characterized by control through a coalition of banks, institutions, families, and shares between enterprises. Many companies are also owned by the state and state institutions. Such markets may have different investor behaviour, as Goslin et al. (2012) predicted for New Zealand. This prediction is supported by the research conducted by Morck et al. (2000), who showed that, in emerging markets such as Poland, stock exchanges are weak processors of economic information and share prices do not behave specifically. Some authors have also suggested that financial reporting in developing countries is of lower quality and less relevant to stock valuation than is the case in common-law countries (Ball, 2006; Ball et al., 2000). In addition, almost all of the studies mentioned focused on the short-term relationship (one year), while single studies (Bhabra & Pettway, 2003) have not confirmed this relationship in the long term. We assume that if the current accounting information affects the valuation of new-issue shares, it means that, for investors, the basis for their valuation is the fundamental value, which is realized in the long term. Therefore, we formulate the following hypothesis:

H3: Information affecting the valuation of new issues is a good predictor of a company's future successes.

3. Sample description and research methods

3.1. Sample

The study is based on a sample of IPO firms which went public on the Warsaw Stock Exchange from 1998 to 2013 and five subsequent years after IPO, so the

analysis cover the period 1998–2018 (total number of IPOs reported in Panel A of Table 1). This initial sample of 496 IPOs was reduced by excluding:

a. financial institutions (e.g., banks and insurance companies);
b. IPOs which were not connected with new common stock issuance; and
c. IPOs for which data was incomplete.

The final sample thus consists of 259 IPOs. Panel A of Table 1 shows the variations in the number of IPOs in the sample over the 16 years of the study.

The primary source of data used in this study was Notoria Service; however, because there are sometimes incomplete or incorrect data in the database, other sources of data were used to supplement these, such as IPO prospectuses and annual reports available on companies' websites and at www.gpwinfostrefa.pl. Market data about the companies comes directly from the WSE website: www.gpw.pl. Panel B of Table 1 reports the basic characteristics of the sample firms one year before their IPOs, such as total assets and total sales.

3.2. Research methods

The study was carried out using multiple regression analysis, which is a standard method for estimating the relationship between the determinants of financial performance and financial performance itself (Paniagua et al., 2018). Two types of models were built. The first type examined the relationship of independent variables from a given year to a company's performance in the same year. In the second type of model used to study predictive power, the relationship of independent variables measured one year before IPO to company performance after the IPO was investigated. To measure the impact of share capital on the inflexibility of capital, the accounting measures of performance were used as the dependent variables. Accounting measures are directly linked to decisions taken in the company; therefore, the effects of decisions aimed at adjusting the amount of capital to current needs are quickly visible in accounting measures. We estimated the following equation:

$$\mathrm{I_A}: Y_t = a + \beta_1 ROS_t + \beta_2 \frac{S}{A_t} + \beta_3 CR_t + \beta_4 \frac{D}{A_t} + \beta_5 \frac{E}{FA_t} + \beta_6 \frac{SC}{E}_t + \beta_7 Ln\ Assets_t + \beta_8 Equity\ growth_t + \beta_9 Sector + \beta_{10} WIG_t + \beta_{11} GDP[\%]_t + \varepsilon_t$$

$$\mathrm{II_A}: Y_t = a + \beta_1 ROS_{IPO-1} + \beta_2 \frac{S}{A_{IPO-1}} + \beta_3 CR_{IPO-1} + \beta_4 \frac{D}{A_{IPO-1}} + \beta_5 \frac{E}{FA_{IPO-1}} + \beta_6 \frac{SC}{E}_{IPO-1} + \beta_7 Ln\ Assets_{IPO-1} + \beta_8 Equity\ growth_{IPO-1} + \beta_9 Sector + \beta_{10} WIG_{IPO-1} + \beta_{11} GDP[\%]_{IPO-1} + \varepsilon_{IPO-1}$$

where the dependent variable Y_t is ROA or ROE, t is the year relative to IPO (IPO + 0 means the year of debut, IPO-1 is one year before debut, IPO + 1 is the first year

Table 1. Sample characteristics.

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	1998–2013
Panel A																		
Total number of IPOs		51	20	11	7	5	6	36	58	63	81	31	13	34	38	19	23	496
Sample number of IPOs		25	15	9	5	2	5	24	22	25	52	22	9	21	12	4	7	259
Sample number of IPOs to total number of IPOs [%]		49.0	75.0	81.8	71.4	40.0	83.3	66.7	37.9	39.7	64.2	71.0	69.2	61.8	31.6	21.1	30.4	52.2
GDP growth [%]		5.0	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.1	1.6	3.8	4.3	1.9	1.6	74.5
WIG		12,795.6	18,083.6	17,847.6	13,922.2	14,366.7	20,820.1	26,636.2	35,600.8	50,411.8	55,648.5	27,228.6	39,986.0	47,489.9	37,595.4	47,460.6	51,284.3	
Panel B																		
Assets $_{-1}$ [PLN million]	Mean	44.8	142.5	596.2	43.1	86.1	134.9	130.5	1 044.6	118.9	97.9	496.1	2,719.5	129.7	115.2	312.9	183.3	331.9
	SD	35.9	172.4	1 158.3	33.8	52.8	57.0	212.7	3 134.6	168.5	152.6	1,868.1	7,160.0	146.2	85.6	253.5	123.5	1,736.8
	Median	34.8	52.5	39.4	41.7	86.1	122.0	74.2	52.4	55.9	52.1	29.0	69.9	93.9	96.3	329.3	161.6	54.7
Sales $_{-1}$ [PLN million]	Mean	91.4	235.8	174.0	47.5	269.4	162.8	107.3	966.3	144.5	118.3	343.6	1,243.6	90.6	98.1	144.0	82.0	253.5
	SD	101.9	260.9	249.5	67.7	299.5	85.1	221.2	2,215.7	256.9	130.9	1,072.9	3,190.0	114.5	88.5	156.8	141.8	961.8
	Median	52.8	78.5	63.1	23.1	269.4	189.3	49.2	77.7	50.0	62.5	26.8	36.5	53.7	69.2	120.7	8.0	54.9

Source: The Author.

after debut. IPO + 5 is the fifth year after debut), and ε is a stochastic error term. All other variables are defined in Table 2.

However, the following market performance measures were used to test the utility of share capital as a signalling tool – market value to book value (MV/BV) and Tobin's Q ratio (QT) and market profitability – Cumulative abnormal return (CAR) and Buy-and-hold abnormal return (BHAR) (Espenlaub et al., 2020). Market measures reflect investors' perceptions and show how they respond to specific signals. We estimated the following equation:

$$\mathrm{I_M}: Y_t = a + \beta_1 ROE_t + \beta_2 \frac{S}{A_t} + \beta_3 CR_t + \beta_4 \frac{D}{A_t} + \beta_5 \frac{E}{FA_t} + \beta_6 \frac{SC}{E}_t + \beta_7 Ln\ S_t + \beta_8 NrSh_t + \beta_9 \frac{IP}{NP} + \beta_{10} Sector + \beta_{11} WIG_t + \beta_{12} GDP[\%]_t + \varepsilon_t$$

$$\mathrm{II_M}: Y_t = a + \beta_1 ROE_{IPO-1} + \beta_2 \frac{S}{A_{IPO-1}} + \beta_3 CR_{IPO-1} + \beta_4 \frac{D}{A_{IPO-1}} + \beta_5 \frac{E}{FA_{IPO-1}} + \beta_6 \frac{SC}{E}_{IPO-1} + \beta_7 Ln\ S_{IPO-1} + \beta_8 NrSh_{IPO-1} + \beta_9 \frac{IP}{NP} + \beta_{10} Sector + \beta_{11} WIG_{IPO-1} + \beta_{12} GDP[\%]_{IPO-1} + \varepsilon_{IPO-1}$$

where the dependent variable are MV/B, Q-T, CAR, BHAR, while t and ε are analogically as above.

As an independent variable, the share of share capital in equity was used. For other control variables, we used both financial indicators showing the financial situation of companies and parameters reflecting the state of the economy (GDP) and the mood of investors (WIG – Warsaw Stock Index) and the sector. To a small extent, these financial indicators were determined by the specifics of the sector, and therefore they have a high comparability value. Those parameters that had a strongly asymmetrical distribution were used in logarithmic form. The variables used in this study are defined in Table 2.

4. Results

4.1. The relationship of share capital to accounting performance

In Table 3 Panel B1, we see that SC/E has a negative effect on ROA. It occurs in the year before the IPO, the year of issue, and in the third and fourth years after issue. This is probably due to the inviolable nature of the SC which means that a company cannot fully adapt capital to current needs, especially when capital needs to be reduced. ROA is scaled with total capital, which means that capital inflexibility caused by SC's large share of equity has negative effects on profitability visible at the level of total capital. The impact of SC on capital flexibility at equity level is obviously stronger as seen in Table 4 Panel B1, where the statistically significant negative impact of SC/E on ROE has already occurred in six years. The negative impact of SC/E on profitability seems to support hypothesis 2 but with some limitations. The analysed sample of debuting companies recorded decreases in profitability after their debuts (Tables 3 and 4, Panel A), which is quite a common phenomenon (Auret & Britten, 2008; Cai & Wei, 1997; Jain & Kini, 1994; Kim et al., 2004; Mikkelson et al., 1997;

Table 2. Variable definitions.

Variable	Definition
Dependent variables	
ROA	Return on assets defined as earnings before interests and taxes divided by total assets
ROE	Return on equity defined as net income divided by shareholders' equity, calculated as the difference between total assets and total liabilities
IP/BV	Issue price to book value of shares
MV/BV	The ratio of market value to the book value of shares
Q-T	Tobin's Q ratio approximated by using Chung and Pruitt (1994) formula: Approximate Q-T = (MVE + PS + D)/TA, where MVE is the product of a firm's share price and the number of common stock shares outstanding, PS is the liquidating value of the firm's outstanding preferred stock, D is the value of short-term liabilities net of short-term assets, plus the book value of the long-term debt, and TA is book value of the total assets.
CAR	Cumulative abnormal return calculated as: $CAR_T = \sum_{t=0}^{T} \left[\frac{\sum_{i=1}^{N} (R_{it} - R_{Bt})}{N} \right]$
BHAR	Buy-and-hold abnormal return calculated as: $BHAR_T = \frac{1}{N} \sum_{i=1}^{N} \left[\prod_{t=0}^{T} (1 + R_{it}) - \prod_{t=t_i}^{T} (1 + R_{Bt}) \right]$ where R^{it} is the return on IPO firm i in month t, R^{Bt} is the return on the benchmark portfolio in month t, N is the number of IPO firms, and T is the number of months
Independent variables	
ROE	Return on equity
ROS	Return on sales ratio defined as earnings before interests and taxes divided by net sales
S/A	Net sales to total assets ratio
CR	Cash ratio defined as short-term investments divided by current liabilities
E/FA	Shareholders' equity-to-fixed-assets ratio
D/A	Debt ratio defined as total debt (the sum of current liabilities and long-term liabilities) divided by total assets
SC/E	Share capital to the total shareholders' equity ratio
Ln Assets	Natural logarithm of total assets
Ln S	Natural logarithm of net sales
Ln NrSh	Natural logarithm of number of shares issued
IP/NP	Isue price to nominal price
Equity growth	Percentage increase in shareholders' equity calculated as proceeds divided by sharelolders' equity before new issue
Sector	Sector of the economy. A variable used to control for the sector effect, which is coded as: 1 – architecture; 2 – chemical industry; 3 – energy; 4 – mining and metallurgy; 5 – trade; 6 – information technology; 7 – media and telecommunications; 8 – heavy industry; 9 – light industry; 10 – food industry; 11 – services.
WIG	Warsaw Stock Exchange Index
GDP [%]	GDP growth rate defined as the percentage change in gross domestic product during one year

Source: The Author.

Pagano et al., 1998). However, it should be assumed that in such a situation, there is a need to reduce capital rather than increase it. The impact of share capital on financial flexibility in the event of a positive investment shock and the need to increase capital require separate studies.

4.2. Usefulness of share capital as a signalling tool

Share capital can be considered a useful signalling tool if its increase in the equity structure is positively received by investors and improves their perceptions of the financial image of the company (Spence, 1973, 2002). To be able to infer this aspect of share capital, one must refer to other phenomena that can be observed. In Table 5 Panel B1, we see that SC/E has a strong and positive impact on the valuation of the

Table 3. Regression analysis of ROA.

	ROA_{IPO-1}	ROA_{IPO+0}	ROA_{IPO+1}	ROA_{IPO+2}	ROA_{IPO+3}	ROA_{IPO+4}	ROA_{IPO+5}	ROA_{IPO+0}	ROA_{IPO+1}	ROA_{IPO+2}	ROA_{IPO+3}	ROA_{IPO+4}	ROA_{IPO+5}
Panel A: Mean value													
N	259	259	259	259	252	233	215						
Mean	0.127	0.078	0.042	−0.002	0.021	0.029	0.041						
Trimmed mean 5%	0.122	0.080	0.052	0.027	0.025	0.030	0.024						
SD	0.124	0.094	0.120	0.246	0.244	0.187	0.422						
Median	0.104	0.073	0.052	0.033	0.032	0.031	0.031						
Panel B: Regression analysis													
	Panel B1: Independent variables from each year							*Panel B2: Independent variables from the year before IPO*					
ROS	0.004	0.048	0.050	0.014	0.303***	0.387***	0.214***	0.004	−0.052	−0.011	−0.012	−0.019	−0.034
	(0.959)	(0.436)	(0.402)	(0.780)	(0.000)	(0.000)	(0.001)	(0.959)	(0.470)	(0.886)	(0.866)	(0.795)	(0.665)
S/A	0.090	0.118**	0.092	0.063	0.126**	0.102*	0.372***	0.090	0.121*	0.036	0.017	0.042	−0.013
	(0.132)	(0.047)	(0.125)	(0.197)	(0.013)	(0.090)	(0.000)	(0.132)	(0.052)	(0.575)	(0.791)	(0.516)	(0.846)
CR	−0.123*	−0.189***	−0.112	−0.119**	−0.058	−0.011	0.020	−0.123*	−0.236***	−0.157**	−0.026	0.004	−0.012
	(0.092)	(0.004)	(0.058)	(0.015)	(0.248)	(0.859)	(0.757)	(0.092)	(0.002)	(0.048)	(0.744)	(0.964)	(0.888)
D/A	−0.043	−0.159**	−0.424***	−0.658***	−0.446***	−0.358***	−0.028	−0.043	0.115*	−0.037	−0.152**	−0.066	0.044
	(0.468)	(0.012)	(0.000)	(0.000)	(0.000)	(0.000)	(0.677)	(0.468)	(0.079)	(0.591)	(0.026)	(0.338)	(0.546)
E/FA	0.059	0.014	0.060	−0.113**	0.001	−0.063	0.038	0.059	0.064	0.076	0.050	−0.011	0.011
	(0.366)	(0.823)	(0.299)	(0.038)	(0.978)	(0.362)	(0.644)	(0.366)	(0.348)	(0.281)	(0.476)	(0.882)	(0.888)
SC/E	−0.149**	−0.283***	−0.085	−0.074	−0.116**	−0.117**	−0.045	−0.149**	−0.116*	−0.048	0.019	−0.104	−0.048
	(0.016)	(0.000)	(0.152)	(0.163)	(0.020)	(0.040)	(0.589)	(0.016)	(0.084)	(0.488)	(0.788)	(0.137)	(0.509)
Ln Assets	−0.331***	0.027	0.075	0.187***	0.214***	−0.015	−0.047	−0.331***	−0.064	−0.022	0.103	−0.017	−0.111
	(0.000)	(0.676)	(0.225)	(0.000)	(0.000)	(0.807)	(0.502)	(0.000)	(0.367)	(0.767)	(0.165)	(0.823)	(0.160)
Equity growth [%]		−0.124*	−0.043	−0.014	0.034	−0.059	−0.126*		−0.124	−0.005	0.082	0.078	−0.058
		(0.059)	(0.486)	(0.779)	(0.507)	(0.318)	(0.061)		(0.108)	(0.947)	(0.301)	(0.337)	(0.487)
Sector	0.005	0.025	−0.032	−0.015	−0.017	0.068	0.029	0.005	−0.004	−0.068	−0.075	0.098	0.072
	(0.934)	(0.678)	(0.586)	(0.758)	(0.730)	(0.257)	(0.660)	(0.934)	(0.953)	(0.297)	(0.244)	(0.133)	(0.303)
WIG	−0.033	−0.087	−0.016	0.006	0.132**	0.106*	0.165**	−0.033	0.043	0.049	−0.018	0.147**	0.063
	(0.579)	(0.188)	(0.795)	(0.900)	(0.018)	(0.074)	(0.018)	(0.579)	(0.508)	(0.470)	(0.793)	(0.032)	(0.372)
GDP [%]	0.053	0.195***	0.075	0.055	−0.039	0.059	0.073	0.053	0.084	−0.052	−0.130**	−0.062	−0.098
	(0.380)	(0.003)	(0.235)	(0.263)	(0.469)	(0.303)	(0.287)	(0.380)	(0.181)	(0.425)	(0.046)	(0.350)	(0.155)
R^2	0.167	0.180	0.197	0.450	0.435	0.314	0.220	0.167	0.108	0.035	0.045	0.048	0.029
F	4.980	4.920	5.511	18.347	16.617	9.044	5.088	4.980	2.732	0.812	1.063	1.110	0.610

Panel A reports the mean values of each variable *Yt*. IPO-1 to IPO + 5 denote the year in relation to IPO, where IPO + 0 is the year of IPO.
The results of the regressions from the model I_A are reported in Panel B1 and from the model II_A in Panel B2.
The constant term is not reported. *P*-values are reported in parentheses. (*), (**) and (***) indicate that coefficients are significant at the 10, 5 and 1 percent levels of significance, respectively.
Source: The Author.

Table 4. Regression analysis of ROE.

	ROE_{IPO-1}	ROE_{IPO+0}	ROE_{IPO+1}	ROE_{IPO+2}	ROE_{IPO+3}	ROE_{IPO+4}	ROE_{IPO+5}	ROE_{IPO+0}	ROE_{IPO+1}	ROE_{IPO+2}	ROE_{IPO+3}	ROE_{IPO+4}	ROE_{IPO+5}
Panel A: Mean value													
N	259	259	257	249	241	224	207						
Mean	0.219	0.092	0.020	−0.076	−0.134	−0.098	−0.413						
Trimmed mean 5%	0.214	0.101	0.063	0.020	−0.004	0.038	0.019						
SD	0.238	0.149	0.432	0.722	1.113	1.450	5.536						
Median	0.196	0.100	0.071	0.045	0.043	0.046	0.044						
Panel B: Regression analysis													
	Panel B1: Independent variables from each year							*Panel B2: Independent variables from the year before IPO*					
ROS	0.033	0.331***	0.863***	−0.119***	0.561***	0.009	0.320***	0.033	−0.012	0.160***	0.030	0.002	−0.007
	(0.625)	(0.000)	(0.000)	(0.008)	(0.000)	(0.770)	(0.000)	(0.625)	(0.855)	(0.000)	(0.690)	(0.979)	(0.934)
S/A	0.078	0.107	0.041	0.034	0.079	0.033	0.186***	0.078	0.122**	0.051	0.029	0.033	0.016
	(0.188)	(0.057)	(0.083)	(0.444)	(0.090)	(0.302)	(0.007)	(0.188)	(0.034)	(0.144)	(0.652)	(0.627)	(0.820)
CR	−0.150**	−0.122**	−0.005	−0.051	−0.089	−0.053	0.018	−0.150**	−0.446***	−0.799***	−0.104	−0.015	0.004
	(0.038)	(0.046)	(0.832)	(0.259)	(0.054)	(0.115)	(0.792)	(0.038)	(0.000)	(0.000)	(0.189)	(0.860)	(0.958)
D/A	0.187***	0.057	−0.052**	−0.221***	−0.195***	−0.051	−0.207***	0.187***	0.152**	−0.148***	−0.204***	−0.025	−0.098
	(0.002)	(0.338)	(0.033)	(0.000)	(0.000)	(0.115)	(0.003)	(0.002)	(0.013)	(0.000)	(0.003)	(0.730)	(0.192)
E/FA	0.085	0.022	0.019	0.011	0.005	0.015	0.044	0.085	0.114	0.282***	0.076	0.046	−0.008
	(0.187)	(0.695)	(0.417)	(0.800)	(0.904)	(0.621)	(0.487)	(0.187)	(0.069)	(0.000)	(0.281)	(0.530)	(0.914)
SC/E	−0.166***	−0.274***	−0.159***	−0.656***	−0.363***	−0.895***	−0.037	−0.166***	−0.077	0.011	−0.056	0.010	−0.035
	(0.006)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.578)	(0.006)	(0.216)	(0.763)	(0.423)	(0.886)	(0.636)
Ln Assets	−0.255***	0.092	0.045	0.073	0.087	−0.024	0.204***	−0.255***	0.018	0.022	0.104	0.092	0.039
	(0.000)	(0.130)	(0.066)	(0.120)	(0.071)	(0.450)	(0.003)	(0.000)	(0.787)	(0.542)	(0.155)	(0.234)	(0.630)
Equity growth [%]		−0.058	−0.025	−0.040	−0.007	−0.006	−0.146**		−0.072	0.001	0.115	0.061	0.083
		(0.349)	(0.318)	(0.376)	(0.878)	(0.841)	(0.030)		(0.298)	(0.980)	(0.142)	(0.465)	(0.323)
Sector	0.008	0.021	0.002	0.023	−0.053	0.068**	0.066	0.008	−0.006	−0.035	−0.131**	−0.028	0.077
	(0.894)	(0.710)	(0.940)	(0.607)	(0.250)	(0.028)	(0.312)	(0.894)	(0.914)	(0.315)	(0.046)	(0.683)	(0.291)
WIG	0.084	0.013	0.060**	−0.021	−0.040	−0.023	−0.055	0.084	0.077	0.073**	−0.029	−0.068	0.071
	(0.153)	(0.840)	(0.015)	(0.653)	(0.424)	(0.454)	(0.417)	(0.153)	(0.188)	(0.039)	(0.656)	(0.322)	(0.326)
GDP [%]	0.052	0.124**	0.015	0.084	0.050	−0.001	−0.071	0.052	0.000	−0.144***	−0.100	0.023	−0.053
	(0.378)	(0.045)	(0.547)	(0.064)	(0.301)	(0.978)	(0.291)	(0.378)	(0.995)	(0.000)	(0.125)	(0.734)	(0.457)
R^2	0.187	0.260	0.875	0.559	0.554	0.826	0.269	0.187	0.237	0.720	0.072	0.014	0.024
F	5.690	7.880	155.71	27.296	25.685	90.057	6.368	5.690	6.967	57.334	1.671	0.288	0.468

As in Table 3.
Source: The Author.

Table 5. Regression analysis of the market to book value ratio.

	IP/BV_{IPO-1}	MV/BV_{IPO+0}	MV/BV_{IPO+1}	MV/BV_{IPO+2}	MV/BV_{IPO+3}	MV/BV_{IPO+4}	MV/BV_{IPO+5}	MV/BV_{IPO+0}	MV/BV_{IPO+1}	MV/BV_{IPO+2}	MV/BV_{IPO+3}	MV/BV_{IPO+4}	MV/BV_{IPO+5}
Panel A: Mean value													
N	259	259	259	259	252	233	214						
Mean	5.964	2.445	1.387	1.830	2.103	1.323	1.882						
Trimmed mean 5%	4.806	2.223	1.766	1.671	1.450	1.188	1.247						
SD	7.744	1.923	10.810	2.734	9.632	2.933	5.805						
Median	3.715	1.938	1.366	1.322	1.194	0.944	1.038						
Panel B: Regression analysis													
	Panel B1: Independent variables from each year							*Panel B2: Independent variables from the year before IPO*					
ROE	0.290***	0.241***	0.092	−0.274***	−1.059***	−0.180	−0.179**	0.236***	0.018	0.036	−0.078	0.189***	0.019
	(0.000)	(0.000)	(0.187)	(0.002)	(0.000)	(0.141)	(0.015)	(0.000)	(0.793)	(0.598)	(0.267)	(0.008)	(0.809)
S/A	0.013	0.004	0.013	0.015	0.041	−0.007	−0.010	−0.018	−0.029	−0.018	0.033	−0.059	−0.001
	(0.796)	(0.950)	(0.832)	(0.806)	(0.104)	(0.912)	(0.904)	(0.738)	(0.654)	(0.776)	(0.619)	(0.373)	(0.986)
CR	0.036	−0.045	−0.101	−0.033	0.004	−0.043	−0.029	0.100*	0.061	−0.001	−0.041	0.067	−0.047
	(0.499)	(0.471)	(0.120)	(0.629)	(0.860)	(0.453)	(0.691)	(0.092)	(0.385)	(0.988)	(0.568)	(0.357)	(0.557)
D/A	0.251***	0.147**	0.160**	0.121*	−0.051*	0.136**	0.157**	0.129**	0.073	0.143**	0.097	0.087	0.137*
	(0.000)	(0.015)	(0.016)	(0.079)	(0.052)	(0.018)	(0.042)	(0.028)	(0.295)	(0.039)	(0.168)	(0.223)	(0.078)
E/FA	−0.034	0.017	−0.014	−0.053	−0.003	−0.011	−0.021	−0.091	−0.013	−0.028	−0.010	−0.024	0.003
	(0.514)	(0.768)	(0.815)	(0.368)	(0.890)	(0.833)	(0.754)	(0.114)	(0.850)	(0.680)	(0.882)	(0.736)	(0.965)
SC/E	0.428***	0.029	0.009	−0.196**	−0.396***	0.465***	−0.070	0.279***	0.134**	0.172**	−0.034	0.240***	−0.014
	(0.000)	(0.657)	(0.899)	(0.031)	(0.000)	(0.000)	(0.346)	(0.000)	(0.049)	(0.011)	(0.621)	(0.001)	(0.855)
Ln S	−0.138**	−0.206***	−0.191**	−0.074	0.031	0.030	−0.048	−0.020	0.130*	0.002	−0.180**	0.136*	−0.162*
	(0.017)	(0.005)	(0.021)	(0.355)	(0.295)	(0.660)	(0.618)	(0.747)	(0.084)	(0.974)	(0.019)	(0.085)	(0.062)
Ln NrSh	−0.105**	−0.044	−0.086	−0.055	0.040	−0.120**	−0.107	−0.134**	−0.112	−0.042	−0.009	−0.114	0.015
	(0.049)	(0.517)	(0.234)	(0.427)	(0.138)	(0.049)	(0.172)	(0.023)	(0.111)	(0.541)	(0.900)	(0.116)	(0.854)
IP/NP	0.190***	0.199***	0.088	0.050	−0.008	−0.025	−0.015	0.217***	0.075	0.113*	0.069	−0.019	0.021
	(0.000)	(0.001)	(0.144)	(0.407)	(0.724)	(0.634)	(0.824)	(0.000)	(0.260)	(0.088)	(0.313)	(0.785)	(0.781)
Sector	−0.036	0.057	0.030	0.084	0.044*	0.059	0.100	0.058*	0.070	0.122*	0.035	0.016	−0.011
	(0.461)	(0.318)	(0.621)	(0.166)	(0.057)	(0.275)	(0.155)	(0.282)	(0.275)	(0.055)	(0.591)	(0.806)	(0.878)
WIG	0.217***	0.280***	0.373***	0.258***	0.054**	0.143***	0.239***	0.284***	−0.036	−0.105	0.032	−0.106	−0.122
	(0.000)	(0.000)	(0.000)	(0.000)	(0.039)	(0.009)	(0.002)	(0.000)	(0.601)	(0.123)	(0.651)	(0.127)	(0.108)
GDP [%]	0.057	0.054	0.093	0.229***	0.023	0.062	0.203***	−0.113**	0.070	−0.024	−0.086	−0.037	−0.068
	(0.248)	(0.375)	(0.126)	(0.000)	(0.351)	(0.228)	(0.004)	(0.039)	(0.282)	(0.705)	(0.193)	(0.571)	(0.346)
R^2	0.451	0.252	0.215	0.215	0.888	0.468	0.163	0.337	0.059	0.081	0.049	0.117	0.043
F	16.821	6.890	5.560	5.450	149.390	15.385	3.111	10.442	1.292	1.809	1.032	2.427	0.739

Panel A reports the mean values of each variable *Yt*. IPO-1 to IPO + 5 denote the year in relation to IPO, where IPO + 0 is the year of IPO.
The results of the regressions from the model I_M are reported in Panel B1 and from the model II_M in Panel B2.
The constant term is not reported. *P*-values are reported in parentheses. (*), (**) and (***) indicate that coefficients are significant at the 10, 5 and 1 percent levels of significance, respectively.
Source: The Author.

Table 6. Regression analysis of the Tobin's Q ratio.

	Q-T $_{IPO+0}$	Q-T $_{IPO+1}$	Q-T $_{IPO+2}$	Q-T $_{IPO+3}$	Q-T $_{IPO+4}$	Q-T $_{IPO+5}$	Q-T $_{IPO+0}$	Q-T $_{IPO+1}$	Q-T $_{IPO+2}$	Q-T $_{IPO+3}$	Q-T $_{IPO+4}$	Q-T $_{IPO+5}$
Panel A: Mean value												
N	259	258	258	251	230	212						
Mean	1.293	1.119	1.166	0.962	1.010	1.107						
Trimmed mean 5%	1.139	0.927	0.951	0.843	0.732	0.793						
SD	1.345	1.380	1.677	3.271	2.247	1.932						
Median	0.998	0.776	0.790	0.669	0.557	0.633						
Panel B: Regression analysis												
	Panel B1: Independent variables from each year						*Panel B2: Independent variables from the year before IPO*					
ROE	0.165**	0.050	−0.005	−0.372***	0.164	−0.100	0.218***	−0.001	0.019	−0.045	−0.078	−0.042
	(0.012)	(0.472)	(0.957)	(0.000)	(0.309)	(0.170)	(0.000)	(0.986)	(0.777)	(0.523)	(0.279)	(0.578)
S/A	0.011	0.055	0.030	0.064	−0.096	−0.091	−0.025	0.003	0.020	0.022	0.040	0.015
	(0.853)	(0.362)	(0.633)	(0.346)	(0.243)	(0.281)	(0.642)	(0.958)	(0.757)	(0.734)	(0.555)	(0.832)
CR	−0.105*	−0.153**	−0.038	−0.027	−0.100	−0.101	0.068	−0.062	−0.100	−0.077	−0.101	−0.102
	(0.096)	(0.017)	(0.581)	(0.676)	(0.181)	(0.166)	(0.241)	(0.352)	(0.150)	(0.286)	(0.171)	(0.187)
D/A	−0.154**	−0.066	−0.114	−0.097	0.072	0.057	−0.117**	−0.059	0.008	−0.032	0.020	0.137*
	(0.011)	(0.307)	(0.103)	(0.170)	(0.335)	(0.453)	(0.043)	(0.377)	(0.906)	(0.647)	(0.780)	(0.071)
E/FA	−0.070	−0.110*	−0.131**	−0.113*	−0.155**	−0.084	−0.122**	−0.079	−0.052	0.002	−0.029	−0.018
	(0.228)	(0.056)	(0.028)	(0.062)	(0.025)	(0.208)	(0.031)	(0.225)	(0.439)	(0.977)	(0.687)	(0.812)
SC/E	0.083	−0.009	0.017	−0.147**	0.166	0.002	0.374***	0.204***	0.039	0.033	−0.094	−0.072
	(0.212)	(0.901)	(0.854)	(0.033)	(0.304)	(0.978)	(0.000)	(0.002)	(0.563)	(0.631)	(0.206)	(0.356)
Ln S	−0.199***	−0.231***	−0.083	−0.021	0.034	0.019	−0.001	−0.137*	−0.198***	−0.101	−0.211***	−0.230***
	(0.006)	(0.005)	(0.303)	(0.790)	(0.701)	(0.847)	(0.983)	(0.056)	(0.008)	(0.184)	(0.009)	(0.007)
Ln NrSh	−0.035	−0.024	−0.034	−0.025	−0.128	−0.150*	−0.116**	0.034	0.113	0.066	0.072	0.043
	(0.607)	(0.735)	(0.627)	(0.730)	(0.104)	(0.056)	(0.045)	(0.613)	(0.104)	(0.350)	(0.330)	(0.579)
IP/NP	0.252***	0.140**	0.107*	0.012	−0.047	−0.013	0.253***	0.220***	0.079	−0.009	−0.003	0.002
	(0.000)	(0.019)	(0.079)	(0.851)	(0.485)	(0.849)	(0.000)	(0.001)	(0.236)	(0.891)	(0.962)	(0.980)
Sector	0.066	0.049	0.023	0.086	0.095	0.134*	0.051	0.005	−0.008	−0.095	0.017	0.069
	(0.250)	(0.414)	(0.703)	(0.166)	(0.178)	(0.056)	(0.337)	(0.941)	(0.903)	(0.147)	(0.801)	(0.331)
WIG	0.261***	0.344***	0.237***	0.174***	0.182**	0.273***	0.272***	−0.045	−0.083	−0.035	0.015	−0.164**
	(0.000)	(0.000)	(0.000)	(0.014)	(0.011)	(0.000)	(0.000)	(0.496)	(0.222)	(0.619)	(0.827)	(0.027)
GDP [%]	0.031	0.087	0.251***	0.116*	0.051	0.261***	−0.141***	−0.156**	−0.142**	−0.152**	−0.202***	−0.164**
	(0.612)	(0.148)	(0.000)	(0.082)	(0.440)	(0.000)	(0.009)	(0.012)	(0.027)	(0.021)	(0.003)	(0.021)
R^2	0.249	0.236	0.195	0.195	0.103	0.179	0.361	0.144	0.079	0.056	0.098	0.098
F	6.811	6.264	4.790	4.554	2.000	3.442	11.600	3.438	1.758	1.188	1.972	1.803

As in Table 3.
Source: The Author.

Table 7. Regression analysis of the CAR and BHAR. Independent variables from the year before IPO.

	CAR_{IPO+1}	CAR_{IPO+2}	CAR_{IPO+3}	CAR_{IPO+4}	CAR_{IPO+5}	$BHAR_{IPO+1}$	$BHAR_{IPO+2}$	$BHAR_{IPO+3}$	$BHAR_{IPO+4}$	$BHAR_{IPO+5}$
Panel A: Mean value										
N	259	259	258	247	232	259	259	258	247	232
Mean	0.293	0.271	0.237	0.254	0.251	0.125	0.039	−0.033	−0.065	−0.105
Trimmed mean 5%	0.039	0.010	−0.018	−0.061	−0.060	−0.018	−0.088	−0.176	−0.271	−0.329
SD	3.378	3.348	3.429	3.757	3.896	1.143	1.058	1.284	1.620	1.596
Median	0.039	−0.035	−0.030	−0.028	−0.067	−0.072	−0.194	−0.297	−0.394	−0.470
Panel B: Regression analysis										
ROE_{-1}	0.020	0.006	0.009	0.019	0.011	0.165**	0.138**	0.138*	0.114	0.092
	(0.774)	(0.933)	(0.895)	(0.791)	(0.877)	(0.017)	(0.049)	(0.050)	(0.114)	(0.212)
S/A_{-1}	0.014	0.020	0.026	0.024	0.021	−0.053	−0.054	−0.044	−0.032	−0.052
	(0.828)	(0.757)	(0.687)	(0.719)	(0.763)	(0.411)	(0.410)	(0.507)	(0.632)	(0.450)
CR_{-1}	−0.077	−0.101	−0.100	−0.102	−0.115	−0.021	0.006	0.010	−0.021	−0.026
	(0.276)	(0.153)	(0.154)	(0.159)	(0.124)	(0.770)	(0.932)	(0.892)	(0.779)	(0.732)
D/A_{-1}	−0.050	−0.046	−0.058	−0.058	−0.056	−0.010	0.014	−0.008	0.060	0.072
	(0.475)	(0.508)	(0.411)	(0.415)	(0.448)	(0.891)	(0.847)	(0.911)	(0.408)	(0.334)
E/FA_{-1}	0.009	0.022	0.026	0.019	0.031	0.014	0.001	0.008	0.020	0.024
	(0.898)	(0.745)	(0.709)	(0.781)	(0.667)	(0.835)	(0.986)	(0.908)	(0.776)	(0.738)
SC/E_{-1}	−0.022	−0.024	−0.031	−0.015	−0.004	0.155**	0.125*	0.025	−0.044	−0.017
	(0.744)	(0.720)	(0.653)	(0.839)	(0.961)	(0.023)	(0.070)	(0.713)	(0.552)	(0.823)
Ln S_{-1}	−0.145*	−0.148*	−0.155**	−0.166**	−0.183**	−0.027	0.070	0.072	0.019	0.036
	(0.057)	(0.051)	(0.041)	(0.034)	(0.023)	(0.718)	(0.359)	(0.346)	(0.813)	(0.651)
Ln NrSh	0.080	0.091	0.103	0.074	0.066	0.028	0.042	0.057	0.005	−0.067
	(0.258)	(0.197)	(0.143)	(0.308)	(0.366)	(0.690)	(0.552)	(0.426)	(0.946)	(0.366)
IP/NP	−0.041	−0.045	−0.053	−0.063	−0.062	−0.033	−0.033	−0.055	−0.066	−0.052
	(0.539)	(0.504)	(0.426)	(0.358)	(0.381)	(0.617)	(0.623)	(0.418)	(0.343)	(0.466)
Sector	−0.063	−0.059	−0.065	−0.072	−0.064	−0.040	0.034	−0.022	−0.004	0.052
	(0.328)	(0.363)	(0.314)	(0.284)	(0.353)	(0.528)	(0.602)	(0.737)	(0.952)	(0.453)
WIG_0	0.060	0.051	0.059	0.052	0.029	0.047	−0.041	0.010	−0.042	0.005
	(0.387)	(0.459)	(0.390)	(0.455)	(0.688)	(0.494)	(0.551)	(0.882)	(0.557)	(0.950)
GDP_{-1} [%]	−0.078	−0.066	−0.082	−0.084	−0.113	−0.061	−0.030	−0.032	−0.046	−0.126*
	(0.229)	(0.309)	(0.207)	(0.204)	(0.099)	(0.350)	(0.652)	(0.627)	(0.498)	(0.068)
R^2	0.046	0.047	0.058	0.056	0.064	0.057	0.037	0.028	0.028	0.046
F	1.010	1.017	1.258	1.175	1.255	1.262	0.803	0.584	0.555	0.872

Panel A reports the mean values of each variable Y_t. IPO-1 to IPO + 5 denote the year in relation to IPO, where IPO + 0 is the year of IPO.
The results of the regressions from the model II_M are reported in Panel B.
The constant term is not reported. *P*-values are reported in parentheses. (*), (**) and (***) indicate that coefficients are significant at the 10, 5 and 1 percent levels of significance, respectively.
Source: The Author.

new issue, i.e., on IP/BV, but in the year of issue and the subsequent years after the issue, no impact on MV/BV can be observed, except for one year in which it is negative and one year in which it is positive. However, it can also be seen that in addition to SC/E, IP/BV correlates with profitability (ROE), leverage (D/A) – which shows positive verification by banks, low supply of shares (Ln NrSh), IP/NP, the inverse of which shows what part of the IP will be booked as share capital and will affect the share of the new issue in the share capital, and timing (WIG). A positive correlation between these parameters and IP/BV seems justified because each of them (except IP/NP) can be a positive signal for investors. However, in the years following the debut, except for timing (WIG), the impact of these parameters on MV/BV almost disappears. This suggests that when a company goes public, it is a new entity on the stock exchange and is not known to investors. It publishes a prospectus with extensive information, including accounting data. Investors absorb this information and it influences their decisions. Thus, it can be said that in this case, there is information efficiency in the market. However, after the IPO, the situation changes. The public company is now just one of the many securities. Investors make their decisions in blocks (Windolf, 2016), counting mainly on the short-term benefit (Kim et al., 2017), which has already been called short-termism (Tonello, 2006). Stock prices break away from the fundamentals, and even such absurd situations as the negative impact of profitability on valuation can be observed (Table 5 Panel B1). The only parameter that maintains a constant impact on the valuation is WIG, which means that investor optimism, not accounting information, is crucial to the valuation of shares. In this context, one can also explain the disappearance of the positive impact of SC/E on MV/BV in the years following a company's listing on the stock exchange. Therefore, the utility of SC as a signalling tool is limited to a company's debut only and disappears in the years after its debut. However, if we assume that the reason for the disappearance is low information efficiency of the market, then the obtained results tend to confirm H1. In a broader context, this also means that the information efficiency of the market is only noticeable when a company goes public, while it is very poor or even disappears after the IPO.

4.3. The predictive power of pre-IPO accounting information on a company's performance after IPO

Accounting information before an IPO is published in prospectuses and usually comes from the financial statements at the end of the year preceding the IPO. In general, previous studies have shown that the time of debut does not affect the financial results of companies going public (Dudycz & Brycz, 2017). However, financial parameters that correlated with pre-IPO performance have very little predictive power for accounting performance after an IPO. As shown in Tables 3 and 4 Panel B2, CR has relatively the strongest prediction power, which negatively affects both ROA and ROE three years after a company's debut. Hence the conclusion that companies that had excessive cash levels before their debuts cannot cope with investing effectively after their debuts as well. Another parameter with very short-term predictive ability is SC/E, which shows a relationship with ROA in the two immediate years after an IPO

Table 8. 2SLS regressions examining the effect of share capital on the accounting performance measures.

Parameter modified by instruments: SC/E
Instruments: ROS, S/A, CR, D/A, E/FA, NP, SGrowth, Ln Assets, Sector, WIG, GDP [%]

	ROA_{IPO-1}	ROE_{IPO-1}
ROS	0.000	0.000
	(0.723)	(0.951)
S/A	0.002	0.003
	(0.218)	(0.270)
CR	−0.005	−0.012
	(0.158)	(0.072)*
D/A	−0.034	0.184
	(0.356)	(0.010)***
E/FA	0.001	0.002
	(0.578)	(0.361)
SC/E	−0.121	−0.247
	(0.089)*	(0.072)*
Ln Assets	−0.037	−0.060
	(0.000)***	(0.001)***
Sector	0.002	0.004
	(0.387)	(0.383)
WIG	0.000	0.000
	(0.204)	(0.359)
GDP [%]	0.003	0.004
	(0.504)	(0.663)
R^2	0.119	0.131
F	4.066	4.439
Hausman's test	1.997	2,230
	(0.158)	(0,135)
Sargan test	1.662	0,974
	(0.197)	(0,324)
Weak instrument test: First-stage - statistic	F (2. 247) = 5.275	

The table reports the 2SLS results. For independent variables, the values of the "b" coefficients of the model are presented. *P*-values are reported in parentheses. (*), (**) and (***) indicate that coefficients are significant at the 10, 5 and 1 per cent levels of significance, respectively.
Source: The Author.

and with ROE in one year. In turn, the size of the company (Ln Assets) is related to ROA and ROE only in the year of the IPO. The leverage behaviour is quite specific. Its high level positively affects ROE before an IPO, but due to the decrease in ROA after the IPO and the occurrence of a negative leverage effect (Schwarz, 2018), the relationship with ROE turns negative.

But what is more important, the results from before an IPO do not predict well the market achievements of companies (Tables 5 and 6 Panel B2). In the case of MV/BV, they are basically related only to the results achieved in the IPO year. It should be noted, however, that IP/BV is the issue price paid before IPO to book value and $MV/BV_{IPO\ +\ 0}$ is the market value at the end of the IPO year to book value after posting the new issue. The time difference may be small – even about a month, so investors basically value the company based on information from prospectuses, as the new financial statement has not yet been published. We can say there is some prognostic power in the case of SC/E, which shows a relationship with MV/BV three years after the IPO and Q-T in two. This justifies the hypothesis that SC can be a signalling tool. IP/NP, whose high value reflects perceptual biases committed by investors, shows little prognostic power. However, there is a clear connection between timing,

Table 9. Regression analysis of the market performance with lagged explanatory variables.

	MV/BV_{IPO+0}	MV/BV_{IPO+1}	MV/BV_{IPO+2}	MV/BV_{IPO+3}	MV/BV_{IPO+4}	MV/BV_{IPO+5}	$Q\text{-}T_{IPO+0}$	$Q\text{-}T_{IPO+1}$	$Q\text{-}T_{IPO+2}$	$Q\text{-}T_{IPO+3}$	$Q\text{-}T_{IPO+4}$	$Q\text{-}T_{IPO+5}$
ROE	0.236***	−0.008	0.113	−0.166**	0.548***	0.197	0.218***	0.163**	0.143*	−0.014	−0.723***	−0.080
	(0.000)	(0.912)	(0.129)	(0.038)	(0.000)	(0.235)	(0.000)	(0.019)	(0.058)	(0.861)	(0.000)	(0.646)
S/A	−0.018	−0.056	0.021	0.028	−0.028	0.017	−0.025	0.039	0.050	0.050	0.017	−0.085
	(0.738)	(0.375)	(0.750)	(0.678)	(0.679)	(0.847)	(0.642)	(0.519)	(0.442)	(0.455)	(0.776)	(0.341)
CR	0.100*	0.096	−0.084	−0.114	−0.042	−0.016	0.068	−0.129*	−0.109	−0.081	−0.087	−0.024
	(0.092)	(0.163)	(0.224)	(0.135)	(0.515)	(0.835)	(0.241)	(0.053)	(0.118)	(0.283)	(0.117)	(0.765)
D/A	0.129**	−0.017	0.107	0.064	0.173**	0.100	−0.117**	−0.077	0.006	−0.060	−0.047	0.093
	(0.028)	(0.801)	(0.126)	(0.396)	(0.017)	(0.201)	(0.043)	(0.226)	(0.930)	(0.421)	(0.449)	(0.248)
E/FA	−0.091	0.045	−0.045	−0.034	−0.018	−0.029	−0.122**	−0.047	−0.132**	−0.152**	−0.086*	−0.124*
	(0.114)	(0.477)	(0.463)	(0.602)	(0.767)	(0.687)	(0.031)	(0.442)	(0.034)	(0.018)	(0.099)	(0.098)
SC/E	0.279***	0.109	−0.099	−0.196**	0.174**	0.307*	0.374***	−0.032	−0.047	−0.094	−0.395***	−0.053
	(0.000)	(0.134)	(0.197)	(0.021)	(0.012)	(0.065)	(0.000)	(0.645)	(0.543)	(0.260)	(0.000)	(0.758)
Ln S	−0.020	0.287***	−0.141	−0.236***	−0.088	0.091	−0.001	−0.358***	−0.229**	−0.150*	−0.025	0.058
	(0.747)	(0.000)	(0.109)	(0.009)	(0.265)	(0.325)	(0.983)	(0.000)	(0.010)	(0.091)	(0.714)	(0.541)
Ln NrSh	−0.134**	−0.198***	0.021	0.106	−0.051	−0.243***	−0.116**	0.159**	0.061	0.025	−0.007	−0.102
	(0.023)	(0.009)	(0.787)	(0.179)	(0.475)	(0.004)	(0.045)	(0.029)	(0.430)	(0.742)	(0.906)	(0.231)
IP/NP	0.217***	0.051	0.008	0.027	−0.023	−0.030	0.253***	0.189**	0.073	0.026	−0.029	−0.043
	(0.000)	(0.450)	(0.895)	(0.682)	(0.711)	(0.665)	(0.000)	(0.004)	(0.259)	(0.697)	(0.583)	(0.547)
Sector	0.058*	0.079	0.084	0.017	0.006	0.152**	0.051	0.007	0.038	0.102	0.121**	0.111
	(0.282)	(0.212)	(0.190)	(0.806)	(0.924)	(0.039)	(0.337)	(0.906)	(0.561)	(0.132)	(0.025)	(0.145)
WIG	0.284***	−0.047	0.237***	0.049	−0.051	0.150**	0.272***	−0.005	0.156**	0.148**	−0.009	0.004
	(0.000)	(0.523)	(0.001)	(0.497)	(0.465)	(0.045)	(0.000)	(0.947)	(0.024)	(0.037)	(0.873)	(0.961)
GDP [%]	−0.113**	0.110	−0.175***	0.048	0.113*	0.072	−0.141***	−0.177***	−0.089	0.055	0.060	0.102
	(0.039)	(0.104)	(0.007)	(0.487)	(0.089)	(0.292)	(0.009)	(0.007)	(0.172)	(0.416)	(0.287)	(0.150)
R^2	0.337	0.094	0.110	0.061	0.242	0.118	0.361	0.164	0.100	0.086	0.448	0.062
F	10.442	2.136	2.514	1.248	5.560	2.143	11.600	4.003	2.567	1.811	13.986	1.051

The table reports the results of the regression: $Y_t = a + \beta_1 ROE_{t-1} + \beta_2 \frac{S}{A}_{t-1} + \beta_3 CR_{t-1} + \beta_4 \frac{D}{A}_{t-1} + \beta_5 \frac{E}{FA}_{t-1} + \beta_6 \frac{SC}{E}_{t-1} + \beta_7 Ln\ S_{t-1} + \beta_8 NrSh_{t-1} + \beta_9 \frac{IP}{NP} + \beta_{10} Sector + \beta_{11} WIG_{t-1} + \beta_{12} GDP[\%]_{t-1} + \varepsilon_{t-1}$. t is the year relative to IPO (where IPO + 1 is the first year after debut). The constant term is not reported. P-values are reported in parentheses. (*), (**) and (***) indicate that coefficients are significant at the 10, 5 and 1 per cent levels of significance, respectively.

Source: The Author.

especially with regard to GDP, and market achievements. Interestingly, however, it is a negative relationship and visible only in Q-T. It may suggest that companies that debuted during the downturn actually needed capital to finance their investments and did not just benefit from a good opportunity to raise cheap capital. However, what is very important for investors is that pre-IPO financial results are very poorly useful for forecasting future returns. Table 7 shows that they do not show any relationship with CAR, while with BHAR, there is a relationship with ROE for three years and one year with SC/E. It follows that hypothesis 3 has not been confirmed.

4.5. Robustness checks

4.5.1. Endogeneity

Given the endogenous nature of accounting information, it can be assumed that there is a simultaneous or inverse causality between the ratio of share capital to equity (SC/E) and accounting performance measures. Firms that perform well accumulate more profit which, booked as reserve capital, increases equity and thus contributes to a decline in SC/E with a constant SC. Also, in the course of the financial year, the earned profit goes to equity. This phenomenon may disrupt the results that we have obtained. In order to alleviate these concerns, we refer to our previous studies, which show that the structure of equity is not only the result of the scale of the previous accumulation of profit, but is also a result of strategies undertaken in this regard (Dudycz & Brycz, 2021). Firms that introduce a small amount of share capital break it down into shares with a low nominal price to ensure that the number of shares is in the desired range, and the existing capital needs are largely supplemented with other types of equity, so SC/E is low. Conversely, firms that inject large amounts of share capital break it down into shares with a higher nominal price and use less equity that is not SC, and thus have a lower SC/E. This is the source of the correlation between the nominal share price (NP) and SC/E. This will be used in the selection of instruments for the two-stage least square regression (2SLS in Gretl), which we used to address the concern of endogeneity (Table 8). The second instrumental variable introduced in the regression of accounting results is sales growth (SGrowth), which is a proxy for IPO-firm quality (following Zheng & Stangeland, 2007). We measured sales growth from one year before the IPO to the IPO year. Three diagnostic tests were used: (1) Hausman's test, to detect endogenous regressors, (2) the Sargan test, for over-identification of applied instrumental variables, and (3) the weak instrument test, to test the quality of the instruments used. Not rejecting the null hypothesis in Hausman's test suggests that the OLS estimator is effective. Failure to reject the null hypothesis in the Sargan test suggests that all instruments in the model are valid. A value for the F statistic of less than 10 means that the instruments are weak in explaining the SC/E regressor, which means that the significance of the parameters in 2SLS is lower than in OLS. Overall, our tests for endogeneity suggest that SC/E is exogenous. However, we need to acknowledge that the weakness of the instruments is a limitation of our study.

4.5.2. Regression with lagged explanatory variables

The strength of the results, indicating that investors absorb information about IPO companies from prospectuses and no longer absorb information from financial statements in the years following the debut, are indicated by the regression results with lagged variables. In Tables 5 and 6, comparing the results for the dependent variable from the IPO + 0 period, we can see that in Panel B both the model fit (R^2) and the explanatory power of the regressors (F statistic $>$ 10) are higher than for the data shown in Panel A. Panel B examines the impact of variables from the IPO–1 period obtained from the prospectus, while Panel A examines the impact of variables from the IPO + 0 period obtained from the financial statements of that period. This means that in the year of the debut (IPO + 0), the information from the previous year disclosed in the prospectus has a greater impact on the market valuation than the information from the financial statements of the current year. This may give rise to an assumption that information from the previous year always has a greater impact on the market performance in the next year than the results of a given year. For this purpose, regression models with delayed explanatory variables by one year were constructed (Table 9). As we can see, starting from the IPO + 1 year, the impact of the previous year's results on the company's market performance in the next year is low and very ambiguous. This suggests that, after the debut, both the results disclosed in the financial statements of a given year and the results from the previous year have a very low impact on the market performance of the company, which strengthens the claim that the information efficiency of the capital market is low in the years following the debut.

5. Discussion and conclusions

The purpose of the article was to examine the impact of share capital on companies' performance and, additionally, the impact of accounting information on market performance of companies. as well as the influence of accounting information before an IPO on the predictive power of achievements after an IPO. The research showed that a large amount of share capital in equity can reduce a company's capital flexibility. which is in line with Ho's (2017) suggestion. This conclusion, however, should be limited to companies where there is a need to reduce capital due to their deteriorating accounting results. The studies do not offer grounds for making conclusions about the impact of share capital on financial flexibility in the event of a positive investment shock and an increase in the demand for capital. However, the results of the research provide grounds for stating that share capital can be a tool to signal the degree of shareholder involvement, which translates into better valuation of shares. These results should be taken into account when analysing shareholders' information expectations. Wide popularization and implementation of International Financial Reporting Standards (IFRS) representing the Anglo-American accounting model has resulted in the dissemination of fair value as a common accounting paradigm. However, fair value is a very fragile measure due to the large fluctuation in market prices and is also highly subjective for unobservable assets on the market. Therefore, whether completely depriving shareholders of all permanent and objective information is the correct direction of change in accounting should be considered. All the

more so because there are voices saying that the Anglo-American model of corporate governance and financial reporting is dysfunctional and a source of crisis (Sikka & Stittle, 2019). In the context of popularizing IFRS, as well as learning about the mechanisms occurring in the 'relational investor' markets, especially emerging markets, the results showing low market information efficiency after an IPO are important. The more so that, as indicated by Joseph et al. (2020), despite the coordinated economic and financial policies of EU members, the markets of Eastern Europe do not show the desired level of market integration. The article has shown that information efficiency is noticeable during IPOs because of the great interest of investors in new companies, but it disappears after the IPO. Stock prices break away from the fundamentals, and timing is the main determinant of market performance. The implementation and dissemination of IFRS is accompanied by many expectations and hope. The results obtained are relevant to research on the usability of accounting standards. Creating and testing new standards will be ineffective in a situation where the market does not absorb information.

The article also showed that information that correlated with the valuation of shares at the time of an IPO has little effect on the predictive power of companies' performance after the IPO. This is another confirmation of the low information efficiency of the market. Since, as suggested earlier, post-IPO share prices break away from the fundamentals, they may not therefore be related to pre-IPO information. One of the reasons for this state of affairs may be seen in the structural changes of investors and the resulting investment behaviour. According to Sikka and Stittle (2019), the number of shares held by individual investors steadily decreases. Parallel to the falling share capital held by individual investors, the turnover rate increases. For example, for the 1,000 largest companies in the US, it increased from 12% in 1960 to more than 100% in 2002 (Windolf, 2016). The share of foreign investors in the stock markets is growing, for example, in Poland belong to them about 60% of turnover. The accompanying language barrier may hamper access to all information. Short-termism is becoming the dominant investment strategy. This strategy does not need information on the foundations of companies. It deals only with tracking moods. Stock prices are not driven by expectations but by expected expectations. Expected expectations replace information (Windolf, 2016). These phenomena may appear faster and more strongly in small and underdeveloped capital markets. This article brings the knowledge for practitioners, investors and policymakers trying to understand what influences the performance of newly listed firms. Accounting information does not captures long-term consequences and market performance is detached from the fundamentals presented in the financial statements. As a result, achievements are largely created outside companies by external actors. In this situation, the influence of the management board on creating value for shareholders is limited. In this context, expectations that the new accounting standards will contribute to an increase in the allocation efficiency of capital markets may be futile.

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